

## **REMARKS**

### **I. Status of Claims**

Claims 1, 7, 10, 12-13, and 22 are pending. Claims 1 and 22 are independent.

Claim 2 stands rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Claim 2 was canceled in the Response filed June 30, 2009 to obviate this rejection.

Claims 1-2, 7, and 22 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sakai (JP Publication 63-119166) (hereinafter "Sakai").

Claims 1-2, 7, 10, 12-13 and 22 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hamada et al. (JP2001-357869) (hereinafter "Hamada") in view of Sakai.

The Applicant respectfully requests reconsideration of these rejections in view of the foregoing amendments and the following remarks.

### **II. Pending Claims and Rejections under 35 U.S.C. § 102**

Claims 1 and 22 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Sakai.

Claims 1 and 22 recite, *inter alia*, (1) "a first cell block having a pressure loss smaller than that of a second cell block," (2) "a cross-sectional area of gas paths formed between the ribs of the first cell block are larger than gas paths formed between the ribs of the second cell block", (3) "a supply port through which gas is supplied to the fuel cell stack, and which is provided in a first end portion of the fuel cell stack, and the fuel cell stack is formed by stacking the cell blocks such that the cell block having the smaller pressure loss is disposed in a vicinity of a second end portion of the fuel cell stack" and (4) "wherein the fuel cell further comprises a discharge port through which gas is discharged from the fuel cell stack, and which is provided in the same first end portion of the fuel cell stack as the supply port." Sakai does not disclose or suggest this combination of features.

The May 1, 2009 Office Action argues that Sakai discloses features that can be considered to correspond to the cell block having the smaller pressure loss is disposed in a vicinity of a second end portion of the fuel cell stack, as recited in claims 1 and 22. Sakai

teaches that in stack group C, positioned on the lower portions, the unit cell's fuel gas flow path cross-sectional area is larger to reduce the pressure loss. (See page 6, lines 18-19, of the English-language translation of Sakai provided with the July 14, 2009 Advisory Action (hereinafter "Sakai")). This configuration is clearly illustrated in Fig. 1(B), which shows the larger cross-sectional area of the gas flow paths in group C relative to groups A and B. Fig. 1(A) further illustrates that group C is positioned on the lower portion of the cell. With reference to Fig. 1(A), it is clearly illustrated that group C is on the same side as the fuel gas feeding manifold 11 and fuel gas exhausting manifold 12. Claims 1 and 22, however, require (1) a supply port...is provided in a first end portion of the fuel cell stack, (2) a discharge port...is provided in the same first end portion of the fuel cell stack as the supply port, and (3) the cell block having the smaller pressure loss [the first cell block] is disposed in a vicinity of a second end portion of the fuel cell stack. In other words, the cell block having the larger cross-sectional area of gas paths is on a different side of the fuel cell than the supply port and discharge port. In contrast, Sakai teaches that the cell block having the larger cross-sectional area of the gas flow paths (group C) is on the same side as the alleged supply and discharge ports.

For at least this reason, Sakai does not anticipate claims 1 and 22.

### **III. Pending Claims and Rejections under 35 U.S.C. § 103**

Claims 1 and 22 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hamada in view of Sakai.

The Office Action states that "Hamada is silent [with respect] to the cross-sectional area of [] gas paths formed between the ribs being larger in the first cell block than the second cell block." To cure this deficiency, the Office Action applies Sakai for its alleged disclosure of first and second plates with differing cross-section areas of gas paths. However, neither Hamada nor Sakai contemplate a cell block having a larger cross-sectional area of gas paths formed between the ribs disposed in a vicinity of a second end portion of the fuel cell stack according to the combination of features recited in claims 1 and 22, as set forth above.

The deficiencies of Sakai in this regard are as discussed above. As conceded by the Office Action, Hamada does not disclose a cross-sectional area of gas paths formed between the

ribs of the first cell block are larger than gas paths formed between the ribs of the second cell block. Thus, neither Hamada nor Sakai, individually or in combination, disclose or suggest (1) a cross-sectional area of gas paths formed between the ribs of the first cell block are larger than gas paths formed between the ribs of the second cell block, (2) a supply port...is provided in a first end portion of the fuel cell stack, (3) a discharge port...is provided in the same first end portion of the fuel cell stack as the supply port, and (4) the cell block having the smaller pressure loss [the cell block having a larger cross-sectional area of gas paths formed between the ribs] is disposed in a vicinity of a second end portion of the fuel cell stack, as recited in claims 1 and 22.

Also, as discussed in *KSR Int'l Co. v. Teleflex, et al.*, No. 04-1350, (U.S. Apr. 30, 2007), it remains necessary to identify the reason why a person of ordinary skill in the art would have been prompted to modify the Hamada and/or Sakai in the manner as recited in the inventions of claims 1 and 22. Obviousness cannot be sustained on mere conclusory statements.

Accordingly, it is respectfully submitted that, for at least these reasons, claims 1 and 22, as well as their dependent claims, are patentable over the cited references.

#### **IV. Conclusion**

In light of the above discussion, the Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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